CLAIMS

What is claimed is:

1. A quick change riving knife, for use with a saw assembly including a frame for at least partially encompassing and connecting with a motor for driving a saw blade and further connecting to the frame a substantially planar work surface including a slot through which the saw blade at least partially extends during operation of the saw blade, comprising:

a riving knife blade generally oriented in relation to the saw blade, the riving knife blade having a first end for substantially extending through the slot and above the planar work surface of the saw assembly and a second end including a riving engagement mechanism;

a riving knife receiving mechanism connected to the saw assembly, the riving knife receiving mechanism for engaging the riving engagement mechanism of the second end of the riving knife blade; and

a fastening mechanism connected to the saw assembly, the fastening mechanism for adjustably contacting the second end of the riving knife blade,

wherein the quick change riving knife enables the engagement and release of the riving knife blade to and from the saw assembly.

- 2. The quick change riving knife of claim 1, further including a blade guard.
- 3. The quick change riving knife of claim 1, further including a spring tab mechanism.
- 4. The quick change riving knife of claim 1, wherein the first end of the riving knife blade includes a wedge flange.
- 5. The quick change riving knife of claim 1, wherein the riving knife blade is a profile riving knife blade.

6. The quick change riving knife of claim 1, wherein the riving knife blade is a friction riving knife blade.

- 7. A riving knife adjustment assembly, for use with a saw assembly including a riving knife and a frame for at least partially encompassing and connecting with a motor for driving a saw blade and further connecting to the frame a substantially planar work surface including a slot through which the saw blade at least partially extends during operation of the saw blade, comprising:
- a shaft member having a first end connected with the riving knife blade and a second end;
- a vertical adjustment device operationally engaging the second end of the shaft member, the vertical adjustment device enabling a user to establish a vertical orientation of the riving knife blade relative to the planar work surface;
- a horizontal adjustment device operationally engaging the second end of the shaft member, the horizontal adjustment device enabling the user to establish a horizontal orientation of the riving knife blade relative to the saw blade,

wherein the riving knife adjustment assembly allows the user to selectively determine the position of the riving knife blade relative to the saw assembly.

- 8. The riving knife adjustment assembly of claim 7, including a quick change riving knife blade.
- 9. The riving knife adjustment assembly of claim 7, including a blade guard.
- 10. The riving knife adjustment assembly of claim 7, including a spring tab mechanism.
- 11. The riving knife adjustment assembly of claim 7, including a wedge flange.
- 12. The riving knife adjustment assembly of claim, includes a profile riving knife blade.

13. The riving knife adjustment assembly of claim 7, including a friction riving knife blade.

14. A biasing riving knife assembly including a riving knife blade, for use with a saw assembly including a frame for at least partially encompassing and connecting with a motor for driving a saw blade and further connecting to the frame a substantially planar work surface for receiving a work piece, the substantially planar work surface including a slot through which the saw blade at least partially extends to perform a cutting function upon the work piece, comprising:

a coupling mechanism connected with the saw assembly, the coupling mechanism for establishing the riving knife blade upon the saw assembly;

a biasing element including a first end connected to the riving knife blade and a second end connected with the coupling element,

wherein the biasing element provides a force sufficient to keep a portion of the riving knife blade in a kerf of the work piece as it is being cut by the saw blade.

- 15. The biasing riving knife assembly of claim 14, including a blade guard.
- 16. The biasing riving knife assembly of claim 14, including a spring tab mechanism.
- 17. The biasing riving knife assembly of claim 14, including a wedge flange.
- 18. The biasing riving knife assembly of claim 14, including a profile riving knife blade.
- 19. The biasing riving knife assembly of claim 14, including a friction riving knife blade.
- 20. The biasing riving knife assembly of claim 14, further including a riving knife adjustment assembly.

21. The biasing riving knife assembly of claim 14, further including a stop assembly.

1.

22. A table saw assembly, comprising:

an arbor operationally coupling a motor with a saw blade, the arbor being adjustably coupled with an underside of a work surface including a slot extending from the underside to a top side of the work surface, the adjustable coupling of the arbor with the work surface enabling the arbor to extend at least a portion of the saw blade through the slot and above the top side of the work surface and further enable a beveling and blade height adjusting capability of the saw blade relative to the work surface;

a riving knife receiving mechanism coupled with the arbor in a manner enabling the riving knife receiving mechanism to operationally maintain its position relative to the arbor while the arbor is enabling the beveling and blade height adjustment of the saw blade, the riving knife receiving mechanism including a first adapter and a second adapter;

a riving knife blade including a first end and a second end, the first end for at least partially extending through the slot above the top side of the work surface in a position behind the saw blade, the second end further including a first receiver and a second receiver, the riving knife blade for coupling with the riving knife receiving mechanism through engagement of the first adapter with the first receiver and the second adapter with the second receiver; and

a fastening mechanism including a fastener coupled with the arbor in a position which enables the fastener to secure the position of the riving knife blade when the riving knife blade is coupled with the riving knife receiving mechanism,

wherein the riving knife blade is enabled with a quick change capability by being inserted into and removed from the riving knife receiving mechanism of the table saw assembly.

23. The table saw assembly of claim 22, wherein the riving knife receiving mechanism includes a generally U-shaped sleeve disposed with a first post and a second post.

24. The table saw assembly of claim 22, wherein the first and second receivers are angled slots.